

Governance and Banking Performance in the Tunisian Banking System

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Abstract The notion of governance has been the subject of several disputes between researchers aimed at property assess the existing relationship between a system of governance within the company and the performance of the latter, it verify that good governance can ensure a proper functioning of the company and, therefore, to improve performance. In this context, a central question revolves around the assessment of the impact of the system of governance on the performance of the Tunisian banks saw that the financial sector has an important role in the economic development process.

Keywords: *governance, performance, bankig sector*

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1. Introduction

The company's performance represents a topic for any firm, regardless of size or sector of activity, given that the improvement of the latter leads best consequences: reduce costs, improve the quality of products and services, gain a competitive advantage, conquer new markets, improve the reputation of the company, etc... the notion of governance has been the subject of several disputes between researchers aimed at property assess the existing relationship between a system of governance within the company and the performance of the latter, it verify that good governance can ensure a proper functioning of the company and, therefore, to improve performance. In this context, a central question revolves around the assessment of the impact of the system of governance on the performance of the Tunisian banks saw that the financial sector has an important role in the economic development process. We interesting in this article to the relationship between a system of governance and performance within the Tunisian banks, via a literature review and empirical analysis, in order to better design the different results obtained by previous studies. Theoretically, we return as a first step, on the paradox of the performance and governance, namely definition, typology and extent. Then, in a second step, we centralize the impact of a system of governance on the performance of the Tunisian banks.

2. Typology of Bank Performance

The performance is a multidimensional concept; there is a variety of the types of performance defined in accordance with the objectives to be achieved. Thus, performance fear

be quantitative, measured by indicators such as turnover, net profit etc.; be qualitative, relative to personal behaviors, the quality of the products and services offered... Similarly, the performance can be global or respect any undertaking or of partial and relative to each service separately. The performance can be classified into:

- **Organizational performance:** it means the way of organization of the company or the manner of exploitation of the resources and means to achieve its goals. Organizational performance is appreciated by the leadership style adopted by the leader to inform its personnel on how to use available resources to achieve the goals prefixed, so this is the ratio between production of value and consumption of resources.

- **Performance management:** it is linked to personal characteristics and behaviours of the leader to the prefixed objectives. More a leader, to be effective, it must be confident in yourself and others and be optimistic, have the capacity for innovation and creativity, responsiveness and a logic of reasoning, have good communication and coordination with the personnel of the firm, make better decisions that positively affect the future of the company.

- **Financial performance:** it is defined after a comparison between a past situation and another current by referring to a number of criteria to know: turnover case, growth rate, rate of return... It is the effective use of financial resources. Classically, the bank financial performance is evaluated by net banking income (GNP) and the size of the Agency. But nowadays, we are witnessing a multiplicity of indicators namely:

- 1- Economic profitability Ratio: refers to the ability of assets to generate income (profitability of assets) and which is measured by the ratio ROA (Return On Asset) which is defined as the ratio between net profit and total assets. The major drawback of this indicator is that it places all of the assets on the same plane, while the risks

associated with each asset are different. Similarly, it ignores off-balance sheet activities.

2-Financial profitability Ratio: refers to the profitability of capital and that is appreciated by the ROE (Return On Equity) ratio. It is determined by the ratio between the net income and equity. He translated the performance from the point of view of shareholders because it puts the attention of the latter on the benefit that pays their contributions (performance of their investments). However this indicator may give a false picture of profitability, because a high ROE ratio may result from a low level of own funds.

3- Efficiency Ratio: it is the ratio net interest (MIN) or intermediation margin margin. It is defined by the ratio of net banking income and total assets. Indeed, with the development of the stock market, new indicators appeared to know:

* Earning per share: this is the ratio between the net income and the total number of shares. This indicator allows having an idea about the financial viability of the shares.

* The Price Earning Ratio (PER): is defined as the ratio between the course and the earnings per share. It is the assessment that the market formula for profitable prospects of listed companies.

*Capitalization: it expresses the value at a particular time of a set of securities or capital of a corporation from their courses in bourse.se defined by the following relation: market capitalization = share price * number of shares composing the share capital

• *A business performance:* it is defined as the ability of a firm to satisfy its customers by offering products and services of quality. This performance is judged from a set of indicators such as the share market, the satisfaction and the customer loyalty, competitive advantage, brand reputation, the reputation, the quality of products and services offered...

• *A strategic performance:* it's a performance that is the future of the company in order to ensure its continuity: it is therefore a long-term performance. It can be defined as the fact that the company is remote and set aside pursuant to better motivation of actors (compensation and reward system) and by the maintenance of a situation of sustainable development and an understanding of the environment (internal and external environmental study).

• *Economic performance:* it refers to the accounts of the company evaluated from the ratio of base including the interim balance of management. It focuses on quantitative criteria namely: growth of turnover, the degree of achievement of objectives and profitability...

• *A technological performance:* it is defined according to the efficient use of the resources of the company and the degree of innovation in the management system and the company's production process. It is appreciated by the degree of use of new technologies of information and communication, the degree of innovation and technology watch.

3. The Bank Governance

3.1. The Development of a System of Governance

[1] defines corporate governance as "the set of means by which capital providers can ensure the return on their investment. While, according to [2] corporate governance

"covers all mechanisms which have the effect of delineating the powers and to influence the decisions of leaders, in other words, that "govern" their conduct and define their discretionary space. Therefore, this concept includes the control and authority, i.e. exercise authority and control. Indeed, in the context of Bank governance, [3] showed that adequate banking supervision to alleviate the banking crises. While [4] asserts that the dysfunction of the Bank governance is originally from deep crises that hit Asian countries.

Also, [5] has shown that good governance Bank trained health and sustainable growth of the economy. Similarly, [6] concluded that good governance is the guarantor of efficient allocation of savings.

3.2. The Different Types of Corporate Governance System

It should be noted that there are two major types of corporate governance:

Shareholder value: it is a system that favours the creation of value for the shareholder (shareholders), meaning that the company is looking to maximize the stock price of securities held by the shareholders. Where the interests of leaders align with those of the shareholders.

Value partnership: in this type of system, it is rather the creation of value for all partners (stakeholders) that is recovered, which means that the company is looking to create wealth between different resources human and material through collaboration and participation between the various stakeholders (customers, suppliers, employees, shareholders,...). Large inputs and thoughts are challenging Anglo-Saxon systems (U.S. and Britain) to Germans and Japanese systems. This contrast between the two main types of system to exonerate by cultural, institutional and legislative differences and various modes of financing. Thus, according to [2], there is a hybrid between these two systems.

4. The Mechanisms of Governance

• *Internal mechanisms:* they are essentially two: the structure of the property and the Board of Directors. The ownership structure: it is a way to encourage leaders to maximize the wealth of shareholders and minimize the costs of Agency in return. So the property is concentrated, more yields an alignment of interests of executives with those of shareholders, meaning that if leaders have a significant share of capital, they would be more concerned with the consequences of their actions on the wealth, therefore, the performance improves. This mechanism is its origin and its foundations in the theory of property right where the firm is seen as a node of contract and the leader must define the tasks (Jensen and Meckling, 1976). Agency theory provides an imperfect alignment between the interests of the shareholders and executives to create value if the property is concentrated, that is, the property is concentrated, over the effectiveness of the control of leaders is strong and more the firm is efficient ([7,8] Agrawal and Mandelker, 1990; [9,10]). While the theory of rooting provides reverse, that the alignment of the interests of executives and shareholders leads the leader to focus on its own interests at the expense of other partners. In this context, the relationship between the concentration

of ownership and the performance of the company was the subjects of several research that eventually conclude the existence of a positive relationship between these two concepts. This is what provides the theory of Agency (in contrast to the rooting theory which posits that the concentration of ownership is a way to root).

The Board of Directors is considered by the theory of agency as a mechanism of discipline of the leader. While transaction costs theory is regarded as a way to secure the transactions between the company and the various stakeholders. But the common point between these two theories is to consider the governing body as a control mechanism. [11] defines « the Board of Directors as the place of Exchange, discussion, monitoring and approval that shareholders may suggest. It is a mechanism to present the interests of the shareholders and has disciplinary authority over the leaders”. In fact, this mechanism is considered effective by the presence of the buddy of other leaders and by the presence of independent external directors of the leaders.

Independence means a separation between the Director General and the president of the Council. It is appreciated by the percentage of outsiders within the Council. [12] States that the duality of functions leads to effects on the effectiveness of the Council saw that duality promotes the power of leader creating, therefore, conflict with shareholders. Similarly, [13] confirm this idea and found that in the case of duality, the performance of a bank is low. While [14] believe that there is no influence of the duality of functions on Bank performance.

The composition of the Board of Directors: the Board the role of outside directors is more important than that exercised by the internal administrators in the control of leaders. In this context, [15] think that the control and monitoring are more effective if the Council is dominated by outside directors. While [16] and [17] provide a negative relationship between the performance and the presence of outside directors on the Board. They see that outside directors are incompetent to effectively monitor the leaders. On the other hand, [13] found that the composition of the Council has no effect on performance.

The size of the Board of Directors, reflects the number of directors within the Council since they are capable of controlling leaders. Indeed, some countries set an optimum size, while others choose a minimum and maximum size. [18] have shown the existence of a positive relationship between the size of the Board of Directors and performance; They concluded that a Board, composed of a large number of Directors, may monitor and audit the decisions taken by the leader, where the leader cannot take decisions against the interests of shareholders. [19] has shown the existence of a negative relationship given that the presence of a small number of administrators increases the risk of revocation of the leaders. In the same framework, Jensen (1983) sees that as the size of the Council is small, more monitoring is effective. Similarly, [20] and [21] has concluded that the Board of Directors of banks should be large (averaging more than 16 members).

• *External control mechanisms:*

Leaders market: this market gives paramount importance to the human factor. Thus, Fama (1980) States that the characteristics of labour market allow to address

agency problems. These characteristics are mainly the reputation of leadership and competence and mutual surveillance: they represent a constraint for the leaders to limit their opportunistic behaviours towards shareholders.

The products and financial services market: competition on this market and the removal of leaders are constraints which prevent leaders too pick and threaten their opportunistic behavior, forcing them to leave the company and be replaced by others more competent to ensure best performance. Therefore, leaders who seek continuity within the Bank must limit their rooting and well to optimize their management.

Financial market: this market allows evaluating the decisions taken by the leaders thanks to the stock price. Thus, if this stock index drops, the leader may be replaced by another in order to improve the performance. Indeed, the financial market is a way for the conflict resolution shareholders-leaders by the fact to punish leaders who do not maximize the value of the firm and to reconcile their interests. Therefore, this market is both a tool to ensure optimal performance and a threat to the incompetent leaders.

The legal and regulatory regime: the legal environment is an effective way to monitor the behaviour of executives of banks who are obliged to comply with standards and the provisions of the Banking Act. Thus, compliance with the regulation allows the firm the achievement of various objectives including: transparency and relevance of information, the security of the transactions...

5. Empirical Studies on the Relationship between Governance and Bank Performance

Several empirical studies conducted in order to test the impact of a system of governance on Bank performance. The found results are mixed: those who concluded that there was a positive effect between these two terms, while others have shown the opposite. Through empirical investigation, we will try to show if governance improve or not the performance of Tunisian banks.

5.1. Data and Methodology

The objective of this research is to identify the effect of the system of governance on Bank performance, especially the financial performance to allow banks to effectively play their role as financial intermediary. The General hypothesis of this memory is expressed through the notion that governance has an effect on Bank performance. As it was already noted that this hypothesis is broken down into sub hypotheses which are as follows:

H1: a Governing Board with a large size improves the Bank performance.

H2: the presence of outside directors in the Council improves the performance of banks.

H3: the duality of functions negatively affects performance.

H4: the presence of institutional investors positively influences the Bank performance.

H5: the presence of foreign investors has a positive impact on the performance of banks.

H6: State participation negatively affects the banking performance.

H7: large-sized banks recorded a best performance.

The data collection was made with reference to the basic report (balance, commitment off balance, result, intermediate management balances, statement of cash flows) from 11 banks traded during the period from the year 2004 until 2014 (Amen Bank, ATB, Attijari Bank, BH, BIAT, BNA, BT, BTE, STB, UBCI, and UIB) published by the Council of the financial market (CMF), the Tunisian Securities Exchange (BVMT) and the professional association of banks of Tunisia (APBT).

5.2. The Model

To test the impact of governance on the Bank's financial performance, we have inspired by the methodology used by Omri (2003). Our model is the following:

$$PERFO = C + \beta_{it}X_{1it} + \beta_{it}X_{2it} + \dots + \varepsilon_{it}.$$

As we have three variables to explain, we will have three models:

$$ROA = C + \beta_{it}JAT + \beta_{it}ADEXT + \beta_{it}DUAL + \beta_{it}INVINST + \beta_{it}ACTETRA + \beta_{it}ACTETAT + \beta_{it}TACTIF + \varepsilon_{it} \quad (1)$$

$$ROE = C + \beta_{it}JAT + \beta_{it}ADEXT + \beta_{it}DUAL + \beta_{it}INVINST + \beta_{it}ACTETRA + \beta_{it}ACTETAT + \beta_{it}TACTIF + \varepsilon_{it} \quad (2)$$

$$MIN = C + \beta_{it}JAT + \beta_{it}ADEXT + \beta_{it}DUAL + \beta_{it}INVINST + \beta_{it}ACTETRA + \beta_{it}ACTETAT + \beta_{it}TACTIF + \varepsilon_{it} \quad (3)$$

With:

- TCA: the size of the Board of Directors.
- ADEXT: the number of outside directors on the Board.
- DUAL: the duality of the steering functions general and president of the Council.
- INVINST: the participation of institutional investors
- ACTETRA: foreign participation.
- ACTETAT: State participation
- TACTIF: the size of the Bank.
- PERFO: banking performance.

5.3. The Variables

In our study, the financial firm performance is treated as endogenous variable that will be explained from the exogenous variables related to the Board of Directors and the ownership structure, while offering some control variables (size of the Bank).

The endogenous variable: it comes to the financial performance of the firm which is appreciated by using accounting, namely measures: the return on equity (ROE), the profitability of assets (ROA) and the intermediation margin (MIN).

Exogenous variables: are the ownership structure and the governing variables. Regarding the variables of the structure of the property, it is:

- The presence of institutional investors: measured by the fraction or percentage of the capital held by institutional investors [22]
- Presence of foreign shareholders: it can influence the effectiveness of the supervision of leaders and, therefore, the performance since it defines the ability of shareholders to access the available information. This variable is measured by the share of capital held by foreign shareholders [23]
- Presence of the State: is measured by the percentage of the capital held by the State.

While for the governing variables, it is:

- The size of the Board of Directors: i.e. the number of Directors at the Council. It is measured by the number of Directors. Thus over the size of the Board is reduced, more control exercised by the directors on the leader is high, and therefore, the latter is obliged to be effective and efficient [24], [25] and [26]
- The number of external directors: is measured by the number of external directors in the Council compared to the total number of Directors [27], and [26].
- Duality: it is the separation between the Chairman of the Board of Directors and general director function. This variable takes the value 1 if the CEO is himself the president of the Council and a value of 0 otherwise ([27] and [28])

The control variables: it's the size of the Bank, which is measured by the logarithm of the total assets at the end of the accounting year [29]. [21] found that the size of the Bank has a positive and significant effect on profitability.

5.5. Descriptive Statistics of the Sample

The following table shows descriptive statistics for the variables to consider.

Table 1. descriptive statistics

	ROA	ROE	MIN	TCA	ADEX	DUAL	ACTETRA	ACTETAT	INV	TACTIF
MEAN	0.014	0.15	0.086	22.26	0.808	1.54	0.542	1.74	0.53	12.35
MEDIAN	0.068	0.19	0.082	19.0	0.78	2.00	0.582	0.69	0.52	13.42
MAX	0.004	0.275	0.045	13.00	0.87	2.00	0.612	42.1	0.748	18.25
MIN	-0.010	-1.117	0.024	6.998	0.001	0.00	0.00	0.001	0.00	11.2
STd.dev	0.03	0.152	0.007	1.415	0.216	0.412	0.254	4.21	0.214	1.541
Skewness	-9.556	-4.471	0.655	-0.874	-0.41	-1.235	-0.251	9.85	0.341	3.25
Kurtosis	52.8	44.2	2.845	3.441	2.041	2.451	1.265	99.45	2.014	14.2
J.B	3853	6581.2	9.022	11.251	6.78	33.12	12.11	514.1	6.214	152.1
Pr	0.00	0.00	0.00		0.0012	0.001	0.00	0.00	0.01	0.00

According to this table, the average size of the Board of Directors is of 11 members, this explains that the specificity of the Bank governance is characterized by the large size of the Council. The size revealed by several

authors is 12 directors for Vafeas (1999), 11 members for [24] and 18 administrators for [21].

Thus, the percentage of external directors in the Council is equal on average to 80.8% (with a maximum of

0.87 and a minimum of 0.01. This share is relatively low, which means independence of Directors. On the duality of functions, it is equal on average to 15.7%. This percentage appears which can lead to the emergence of the principal/agent conflicts. In addition, the proportion of the capital held by institutional investors is 25.48%. While foreign participation averaged 54.2%. And for the State, it holds an average share of 17.4%; this means a strong State participation in the capital of the Tunisian banks. Indeed, the average size of banks is 12.35%, which brings us to consider that these banks are of small size. Finally, as regards the explanatory variables ROA, ROE, and MIN, they have average shares of 1.4%, 15% and 8.6%. Thus, we see that the coefficient of the kurtosis is high for most of the variables to consider. This excess kurtosis indicates a high probability of occurrence of extreme points, and therefore the series have a thick character. Moreover, the coefficient of skewness is different from 0. This illustrates the presence of asymmetry, which can be an indicator of non-linearity, because that linear Gaussian models necessarily symmetric. This asymmetry translates the fact that volatility is lower after a rise than after a decline in profitability. While a negative skewness coefficient indicates that the distribution is spread to the left that the variables to study react advantage a negative impact rather than a positive shock. Therefore, the assumption of

normality is not checked and the Jarque-Bera test confirms this result and significantly rejects the normal distribution of the different variables forming the sample; this is a general feature of the financial series for most of the variables to consider.

5.6. Model Estimates

As a first step, we conducted a regression in bulk in our sample using the method of least square regular MCO. But given the nature of panel data, this technique seems biased even if the estimators are consistent. Therefore two solutions are available to resolve this complication: estimation to estimate random effects or fixed effect. To limit this bias, we performed a regression, in fixed effect, in a second step. This choice was adopted following a performed test of Hausman. Besides the specific effect when it is random, it will be correlated with the explanatory variables. The use of fixed effects requires the existence of an effect specific to each individual which is taken into account at the level of the μ it residue.

Estimate by the OLS method without individual effect: the following table summarizes the three regression models related to the effect of governance on the performance of the Tunisian banks using the OLS method.

Table 2. impact of the variables of governance on Bank performance

	ROE			ROA			MIN		
	coefficient	Tstudent	prob	coefficient	Tstudent	prob	coefficient	Tstudent	prob
Constant	0.524	1.457	0.18	0.0551	2.648	0.009	0.0547	5.9447	0.000
TCA	-0.017	-1.748	0.085	-0.004	-2.2241	0.0245	0.000214	0.5412	0.587
ADEX	-0.1284	-1.954	0.053	-0.019	-2.448	0.0154	-0.0214	-7.1145	0.000
DUAL	0.0932	2.711	0.0078	0.0042	0.988	0.325	0.00366	2.341	0.0214
INV	-0.0841	-0.548	0.554	-0.00351	-0.4324	0.664	0.00645	1.9503	0.0541
ACTETR	-0.0541	-0.6601	0.511	-0.00324	-0.3921	0.694	0.00861	2.4304	0.017
ACTETA	0.00019	0.0534	0.959	2.59E05	0.0845	0.921	-2.7E06	-0.0181	0.99
TACT	0.00069	0.072	0.948	-0.00096	-0.0998	0.321	-0.00074	-1.6391	0.114
R^2	0.1217			0.112			0.3919		
Ajusted R^2	0.0702			0.05014			0.3502		
DW	1.9474			1.7997			0.6457		
F Stat	2.1755			1.8214			9.3921		

We note that R^2 is low for all three models; this model is therefore not too persistent. Therefore the homogeneous model cannot be considered robust. Therefore, we pass to the MCO by fixed effect estimates or estimation by random effect; It is therefore to verify the existence of a specific or individual effect.

Estimate by the panel fixed (MCO fixed effect): the following table shows the three regression models related to the effect of governance on the performance of the Tunisian banks, according to the method of panel fixed effect.

Table 3. impact of the variables of governance on Bank performance

	ROE			ROA			MIN		
	coefficient	Tstudent	prob	coefficient	Tstudent	prob	coefficient	Tstudent	prob
Constant	0.542	1.698	0.0992	0.0554	1.664	0.103	0.04771	4.115	0.0001
TCA	-0.04012	-2.1997	0.0341	-0.0044	-2.114	0.0364	0.00054	0.7558	0.4225
ADEX	-0.174	-0.1952	0.865	-0.0025	-0.2265	0.817	-0.0119	-3.765	0.005
DUAL	0.0832	1.6554	0.1009	0.0059	1.1334	0.278	0.00354	1.8669	0.065
INV	-0.0142	-0.2154	0.836	-0.0032	-0.256	0.826	-0.00438	-1.3556	0.187
ACTETR	0.048	-0.6601	0.6125	0.00415	0.378	0.771	-0.00981	-2.3554	0.017
ACTETA	5.03E05	0.0154	0.998	3.36E05	-0.1005	0.921	-2.3E05	-0.2014	0.882
TACT	-0.0051	-0.4425	0.5664	-0.00044	-0.0348	0.772	-0.000248	-0.4571	0.524
R^2	0.254			0.3058			0.736		
Ajusted R^2	0.118			0.17782			0.63458		
DW	2.2245			2.268			0.9254		
F Stat	1.8654			2.3847			12.242		

MCO estimation random effects: the following table shows the three regression models related to the effect of governance on the performance of the Tunisian banks.

Table 4. impact of the variables of governance on Bank performance

	ROE			ROA			MIN		
	coefficient	Tstudent	prob	coefficient	Tstudent	prob	coefficient	Tstudent	prob
Constant	0.2654	1.404	0.156	0.0551	2.648	0.009	0.0547	5.9447	0.000
TCA	-0.0164	-1.785	0.0771	-0.004	-2.2241	0.0245	0.000214	0.5412	0.587
ADEX	-0.12445	-1.911	0.056	-0.019	-2.448	0.0154	-0.0214	-7.1145	0.000
DUAL	0.09142	2.744	0.0077	0.0042	0.988	0.325	0.00366	2.341	0.0214
INV	-0.0421	-0.5554	0.558	-0.00351	-0.4324	0.664	0.00645	1.9503	0.0541
ACTETR	-0.0477	-0.6610	0.522	-0.00324	-0.3921	0.694	0.00861	2.4304	0.017
ACTETA	0.00018	0.0512	0.9591	2.59E05	0.0845	0.921	-2.7E06	-0.0181	0.99
TACT	0.00055	0.0661	0.948	-0.00096	-0.0998	0.321	-0.00074	-1.6391	0.114
R ²	0.1254			0.0665			0.2178		
Ajusted R ²	0.06447			-0.00435			0.1645		
DW	1.9665			2.08554			0.7884		
F Stat	2.0335			0.9881			4.0733		

5.7. Results

For the interpretation of the results, we will rely on two main tests to choose the model to interpret:

Test of homogeneity / heterogeneity of Fisher's constant (Hurlin, 1978):

H0: all the α_i are constant, where the model is homogeneous, and therefore, we must choose the model estimated by the OLS method.

H1: the α_i are different, where the model is heterogeneous, and therefore, it necessaire the Hausman test.

$$F = \left(\frac{SCR0 - SCR1}{N - 1} \right) / \left(\frac{SCR1}{N(T - 1)K} \right)$$

With: N: number of observations (number of banks).

T: period of study.

K: number of explanatory variables.

The decision rule is to accept the H0 hypothesis if and only if F calculated is less than F tabbed (according to statistical table of Fisher), and reject H0 if not.

Table 5. Summary table of the test of homogeneity/heterogeneity of Fisher

	ROE	ROA	MIN
Calculated F	1.564	2.581	9.0012

In our case, the calculation of Fisher specification test (see annex: homogeneity/heterogeneity of Fisher test) results that only the model of estimation of ROE is homogeneous, and therefore, our interpretations will be based on the model estimated by the MCO method without individual effect. While the two remaining templates of ROA and MIN are heterogeneous, so it is necessary to pass the Hausman test, to determine if this effect is fixed or random.

Analysis of financial profitability (ROE):

The significance of the model variables: the variable size of the Board of Directors is negative and statistically significant (at the 10% threshold), which implies that the size of the Board of Directors and financial performance are negatively correlated. This finding invalidates our first hypothesis H1 linking governance and performance in the banking sector with a positive sense. On the variable presence of outside directors on the Board, it is noted that according to the results that this variable has a negative and statistically significant coefficient (at the 5% and 10%

threshold). This brings us to point out that the presence of external Governments within the Council has a negative impact on the financial performance of the Tunisian banks. H2 is therefore rejected. Similarly, with respect to the variable duality, she admits a coefficient positive and statistically significant at the 10% and 5% threshold; this comes to the conclusion that the duality of functions affects the financial viability of the Tunisian banks measured by the ROE ratio. Our H3 hypothesis is confirmed. The participation of institutional investors variable has a coefficient negative but not significant; which means that this variable has a negative impact on the financial performance of the Tunisian banks. Our H4 hypothesis is therefore rejected. Regarding the explanatory variable, foreign participation in the capital of banks, it has a coefficient negative and statistically nonsignificant. This implies the rejection of our hypothesis H5, meaning that foreign participation negatively affects the financial performance of the Tunisian banks. With respect to the variable State participation in banks, it has a positive and significant coefficient. This brings us to reject our H6 hypothesis, i.e. that the State participation negatively affect the financial performance of the Tunisian banks. Regarding the control variable, the size of the Bank, it presents a positive and non-significant coefficient which means that it does not affect the financial performance of the Tunisian banks. H7 is therefore rejected.

The explanatory power of the model: the coefficient of determination R² allows to present an estimate of the total variability. This coefficient varies in the range (0-1): when this ratio approaches the upper limit (the unit), the model says provided with explanatory power.

According to the results, we can notice that R² is higher than the adjusted R² (adjusted R² = 0.070193), it is worth noting that our model is not provided with a good explanatory power since it accounts for only 13% (R² = 0.1299 \approx 13%) of the variability of financial performance (measured by the ratio of ROE). What makes our model little meaningful and open to criticism.

Global significance Test: F-Statistic = 2.175522 is less than F0.05 (10; 11) tabbed = 2.854; this implies that the model is not globally significant, that is, the variables of governance (those of the Board of Directors and the structure of the property) do not explain overall financial performance of Tunisian banks.

The Durbin-Watson test: with a $DW = 1.81 \approx 2$, there is not a problem of auto correlation of errors.

Analysis of the economic profitability (ROA):

The significance of the variables in the model: the evolution of the return on assets (as a percentage of the assets) and its potential determinants is represented. The variable size of the Board of Directors is statistically significant and its coefficient is negative sign, which implies that the size of the Board and economic performance are negatively correlated.

Therefore, we can see that the existing administrators in the Council have a negative power to monitor decisions taken by leaders. This result does not confirm our hypothesis H1, which connects a positive sense governance and performance in the banking sector. This result is confirmed practically by several authors, namely Jensen (1993) concluded that more the size of the Board of Directors increases, the capacity of the control increases, which leads to internal problems, including the difficulty of communication and decision-making. Brown and Mahoney (1992) and Bantel and Jackson (1989) assume that the existence of a negative relationship between the size of the Board of Directors and the performance can be explained by the idea that the large groups together a multiplicity of ideas and cultures that will give rise to a disagreement and a problem of cohesion. On the variable presence of outside directors on the Board, it is noted that according to the results of our study, the relative coefficient is negative and not significant. This brings us to the conclusion that the presence of external Governments within the Council has no impact on the economic efficiency of the Tunisian banks. Therefore our H2 hypothesis is rejected. Similarly, regards the duality variable, it presents a positive but non-significant coefficient which is to infer that the duality of functions has a negative effect on the economic efficiency of the Tunisian banks measured by the ROA ratio. Consequently, H3 is dismissed. This hypothesis is supported empirically by [19] and [18] which stipulate that the duality of functions leads Executive Director to manage the company in accordance with its own interests. The participation of institutional investors variable has a coefficient negative and not significant; that is to conclude that the participation of institutional investors has a negative impact on the economic efficiency of the Tunisian banks, which negatively influence on the financial performance of banks. H4 is therefore rejected. Regarding the explanatory variable, foreign participation in the capital of banks, it has a coefficient negative and statistically nonsignificant. This entails the rejection of our hypothesis H5, i.e. foreign participation negatively affects the economic profitability of the Tunisian banks, and therefore, the financial performance of banks. With respect to the variable State participation in banks, it has a negative and insignificant coefficient. This brings us to reject the H6 hypothesis, i.e. that the State participation does not affect the profitability of the Tunisian banks, and therefore, it has a negative impact on financial performance. This is confirmed by the literature which stipulates that State-owned banks are aware of a lack of effectiveness and a low performance [30]. With regard to the control variable, the size of the Bank, she has a coefficient negative and not significant; which means a lack of correlation between the economic profitability of

the Tunisian banks and size of banks, and consequently, H7 is dismissed.

The explanatory power of the model: as we can see, our model is not provided with a good explanatory power since it accounts for only 30% ($R^2 = 0.305761$) the variability of economic profitability (measured by the ratio of ROA).

Global significance Test: F-statistic = 2.383481 is less than $F_{0.05}(10;11)$ tabbed = 2.854; This implies that the model is not globally significant, i.e. that the variables of governance (the size of the Board of Directors, the presence of outside directors in the Council, the duality of functions, foreign participation, the State participation, the participation of institutional investors and the size of Bank) do explain not overall cost effectiveness of Tunisian banks.

The Durbin-Watson test: with a $DW = 2.26 \approx 2$, it is expected that there be no problem of auto correlation of errors.

Analysis of Bank efficiency (MIN):

The significance of the model variables: the variable size of the Board of Directors is statistically insignificant, and its coefficient is positive sign. The non significance of results leads to reject our first hypothesis H1, positively linking the size of the Board with banking efficiency. In other words, the size of the Board of Directors does not affect the efficiency of banks; it means whatever the number of existing administrators within the Council, they do not have enough power to effectively control the decisions taken by the leaders. On the variable presence of outside directors on the Board, it is noted that according to the regression, the relative coefficient is negative and statistically significant. This brings us to the conclusion that the presence of external Governments within the Council negatively influences the efficiency of the Tunisian banks (measured by net interest margin).

Consequently, our second hypothesis H2 is dismissed. Similarly, regarding the duality variable, it presents a positive but not significant at 1% and 5% threshold and significant coefficient on the 10% threshold, which is to note that the duality of functions influence the efficiency of the Tunisian banks measured by ratio MIN. Our H3 hypothesis is therefore rejected which means that the cumulation of positions does not affect the efficiency of the banks. For the participation of institutional investors variable, it has a negative and insignificant coefficient. Our H4 hypothesis is therefore rejected, and therefore, we can say that the participation of institutional investors has a negative impact on the efficiency of the Tunisian banks, which negatively affects the banking performance. Regarding the variable foreign participation in the capital of banks, it has a coefficient negative and statistically significant at the 5% and 10% confidence level. This amounts to reject our fifth hypothesis H5, meaning that foreign participation negatively influences the efficiency of the Tunisian banks, which negatively affect financial performance. Thus, with respect to the variable State participation in banks, it presents a negative and insignificant coefficient. This brings us to reject our H6 hypothesis, i.e. that the State participation does not contribute to an improvement of banking performance. Regarding the control variable, the size of the Bank, she has a coefficient negative and not significant, which means that it has no effect on the efficiency of the Tunisian banks. H7 is therefore rejected.

The explanatory power of the model: using the regression, we can say that our model is provided with a good explanatory power since it explains 69% ($R^2 = 0.692699$) the variability of banking efficiency (measured by the ratio of MIN) and also saw that R^2 is higher than adjusted R^2 (adjusted $R^2 = 0.635915$). Global significance Test: F-statistic = 12.19886 is greater than $F_{0.05}(10; 11)$ tabbed = 2.854; This implies that the model is globally significant, i.e. that the variables of governance (the size of the Board of Directors, the presence of outside directors in the Council, the duality of functions, foreign participation, the State participation, the participation of institutional investors and the size of Bank) explain overall efficiency of the Tunisian banks. The Durbin-Watson test: with a DW = 0.92 in the presence of auto correlation, the OLS estimators are unbiased.

6. Conclusion

Corporate governance (corporate governance) refers to a set of rules enabling shareholders to enjoy that companies, in the which they have a share, are run in accordance with their interests. Generally, these rules are organized as follows: shareholders delegate their powers of control to the Board of Directors, which itself delegates to the General management of the company while focusing on the satisfaction of the expectations of shareholders. Thus, the notion of governance focuses on various aspects including: the governing body (size, role, and composition), the structure of the property, the power, the role of executives and shareholders in the firm, disclosure of information, the decision making process... Therefore the governance, through internal and external mechanisms, represents a solution to the conflicting relationship shareholders-leaders. Corporate governance contributes substantially to the development of a healthy and confident climate between the investor and the enterprise, and protects public savings. Thus, good governance within the firm provides a number of advantages, of which the most important is the protection against the dangers and difficulties to which is exposed the company and ensures, therefore, its growth. Good governance is, therefore, a brake for the risk taking.

Similarly, the banking environment is characterized by instability and vulnerability, requiring banks to adopt a system of governance in order to be efficient and well positioned in the financial market. Thus, the term performance is a one-dimensional concept as it is appreciated by a single criterion (realization of profit). And as such, this concept fills one role, that of creating value for shareholders. But with the development of the company, considered as a place of encounter and exchange between different actors (employees, creditors,...), the performance has become a multidimensional concept rather than one-dimensional.

Throughout this work, we have tried to provide answers to the question on the impact of the system of governance on Bank performance. To do this, we started our theoretical research by the analysis of the concepts of performance and governance, the importance of the system of governance in a firm and internal and external control mechanisms. We have achieved the theoretical result that a governance system influences the

performance of the firm. To verify these findings empirically, we conducted an investigation of 11 listed banks, we found that the majority of our basic assumptions are not confirmed.

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